

Notice of Allowability

Application No.

09/636,246

Examiner

Kin-Chan Chen

Applicant(s)

WANG ET AL.

Art Unit

1765

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to September 7, 2004.
2. ☒ The allowed claim(s) is/are 1-6, 11, 12, 14, 15, 19, 21, 22, 26-31, 36, 37, 42, 44, 47 and 51.
3. ☐ The drawings filed on _____ are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

K. Chen
KIN-CHAN CHEN
PRIMARY EXAMINER

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Robert Lanning / John Kilyk, Jr., on October 25, 2004.

The application has been amended as follows:

Replace claim 1 with --

1. A system for polishing one or more layers of a multi-layer substrate that includes a first metal layer and a second layer comprising: (i) a liquid carrier, (ii) at least one oxidizing agent, (iii) at least one carboxylic acid that increases the rate at which the system polishes at least one layer of the substrate, (iv) a polyethylenimine, (v) a polishing pad and/ or an abrasive.

In claim 11, line 1, delete " at least one stopping compound" and insert – the polyethylenimine--.

In claim 12, line 1, delete " at least one stopping compound" and insert – the polyethylenimine--.

Replace claim 14 with --

14. The system of claim 3, wherein the system comprises at least one carboxylic acid selected from the group consisting of di-carboxylic acids, tri-carboxylic acids, polycarboxylic acids, and mixtures thereof.—

In claim 19, line 1, replace "18" with –1--.

In claim 21, line 1, replace "20" with –3--.

In claim 22, line 1, replace "16" with –3--, and replace " at least one stopping compound" with – the polyethylenimine--.

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In claim 26, after "peroxide", replace "," with – and--. Also, after "tartaric acid", delete", and a polyethylenimine".

Replace claim 36 with --

36. A composition for polishing one or more layers of a multi-layer substrate that includes a first metal layer and a second layer comprising: (i) a liquid carrier, (ii) at least one oxidizing agent, (iii) at least one carboxylic acid that increases the rate at which the system polishes at least one layer of the substrate, (iv) a polyethylenimine, to be used with a polishing pad and/ or an abrasive.

Replace claim 37 with --

37. The composition of claim 36, wherein at least one carboxylic acid is selected from the group consisting of di-carboxylic acids, tri-carboxylic acids, poly-carboxylic acids, and mixtures thereof.--

In claim 42, line 1, replace "38" with –36--, and replace " at least one stopping compound" with – the polyethylenimine--.

In claim 44, line 1, replace "38" with –36--.

In claim 47, line 1, replace "16" with –14--.

Replace claim 51 with --

51. The system of claim 1, wherein the polyethylenimine has a molecular weight of about 250 or more.

2. Cancel claims 13, 16-18, 20, 23-25, 38-41, 43, 48-50, and 52-67.
3. Because claims 1, 3, and 14 are allowable, previously non-elected dependent claims 2, 5, 6, 21, and 47 are hereby rejoined and fully examined for patentability under 37 CFR 1.104. Since claims 2, 5, 6, 21, and 47 previously withdrawn from consideration under 37 CFR 1.142 have been rejoined, the restriction /election requirement of claims 2, 5, 6, 21, and 47 is hereby withdrawn.
4. Claims 1-6, 11, 12, 14, 15, 19, 21, 22, 26-31, 36, 37, 42, 44, 47 and 51 are allowed.

REASONS FOR ALLOWANCE

5. The following is an examiner's statement of reasons for allowance:

Applicant's responses including the declaration of the inventor submitted under Rule 1.132 (June 1, 2004) are deemed persuasive to overcome the previous 35 U.S.C.103 (a) rejections.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kin-Chan Chen whose telephone number is (571) 272-1461. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nadine Norton can be reached on (571) 272-1465. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you


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have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

October 25, 2004


Kin-Chan Chen
Primary Examiner
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